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July 26, 2010

Via Electronic Filing

Ms. LaDonna Castañuela Chief Clerk, MC-105 Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087

Re

Application of White Stallion Energy Center, LLC for

Air Quality Permit Nos. 86088, PSD-TX-1160, PAL 26 and HAP 28

SOAH DOCKET NO. 582-09-3008 TCEQ DOCKET NO. 2009-0283-AIR

Dear Ms. Castañuela:

Enclosed please find Environmental Defense Fund, Inc.'s Exceptions to the Proposal for Decision.

If you have any questions concerning this filing, please do not hesitate to contact me at the number above.

Sincerely.

Paul R. Tough

PT/jam 5043-09 Enclosure

cc:

Honorable Judge Paul D. Keeper (via hand delivery)

Honorable Judge Kerrie Jo Qualtrough (via hand delivery)

SOAH Docket Clerk (via hand delivery)

Service List

SOAH DOCKET NO. 582-09-3008 TCEQ DOCKET NO. 2009-0283-AIR

APPLICATION OF WHITE STALLION	§	BEFORE THE STATE OFFICE
ENERGY CENTER, L.L.C.	§	
FOR STATE AIR QUALITY PERMIT	§	OF
NOS. 86088; HAP28, PAL26,	§	
AND PSD-TX-1160	8	ADMINISTRATIVE HEARINGS

ENVIRONMENTAL DEFENSE FUND, INC.'S EXCEPTIONS TO THE PROPOSAL FOR DECISION

TO THE HONORABLE COMMISSIONERS:

COMES NOW Protestant Environmental Defense Fund, Inc. ("EDF") and files these Exceptions to the Proposal for Decision ("PFD") submitted by the Administrative Law Judges ("ALJs") in the referenced dockets.

I. INTRODUCTION

EDF agrees with the ALJs that Applicant White Stallion Energy Center, LLC ("White Stallion" or "Applicant") failed to meet its burden of proof on numerous issues by relying on data that did not meet quality assurance criteria, failing to include coal dust in the State Effects Review, and failing to meet the requirements for Best Available Control Technology ("BACT") and Maximum Achievable Control Technology ("MACT"). However, EDF does not agree that the Applicant has prevailed on the remaining issues. Therefore, EDF urges the Commissioners to either recommend denial or, in the alternative, remand the Application and Draft Permit to the Executive Director ("ED") for further review.

¹ In the interest of brevity, EDF focuses only on certain exceptions to the PFD, which in no way should be construed as a limit on or a waiver of issues that may be raised in a future motion for rehearing. Additionally, EDF incorporates by reference the Exceptions filed by other Protestants and the arguments set forth in EDF's Closing Brief and Reply Brief previously filed in these dockets. For ease of reference, these Exceptions collectively refer to Applicant's PSD permit application (PSD-TX-1160), its hazardous air pollutant application (HAP-28), its plantwide applicability limit (PAL 26) and state air quality permit (86088) as the "Application," specifying individual permit applications only when necessary, and the proposed facility as "WSEC."

II. WSEC'S MULTIPLE PROPOSED SITE PLANS

A. The ALJs erred in relying on the Commission's alleged referral to SOAH and White Stallion's "Intent"

As stated in Finding of Fact ("FOF") No. 38, White Stallion has three pending applications: a current application under this docket ("Air Permit Application"), an application for a wastewater discharge permit filed with the TCEQ ("Wastewater Permit Application"), and a Clean Water Act Section 404 permit filed at the United States Corps of Engineers ("Section 404 Permit Application"), and that White Stallion included a site plan with each application. These three site plans, however, are different and conflicting. The ALJs correctly summarize the evidence and arguments made by Protestants on the issue, but erroneously base their assertion that the only relevant site plan to this docket is the plan submitted with the Air Permit Application on the fact that the Commission referred *this* Application to SOAH, and White Stallion's so-called intent. Both bases for denying Protestants' motion to dismiss or continue the hearing until the differences were resolved are without merit.

First, the ALJs rely on the fact that "the Commission" referred the Application to SOAH, and that Applicant's actions in filing other actions "did not change the facts that led the Commission to refer this case to SOAH." However, the application was direct-referred to SOAH by the Applicant, not TCEQ. Thus, the intended importance of the fact that the Commission approved of transfer of the Application to SOAH, questionable site plan and all, is of little value, and certainly is not a sufficient point to rely on in denying the motions.

Next, the ALJs err in relying on White Stallion's "intent" to build the facility as shown on the Air Permit Site Plan because the evidence demonstrates that White Stallion's intent is, at best, difficult to discern. It is undisputed that White Stallion signed both its Air Permit

² PFD at 13.

Application and Wastewater Permit Application and represented that the facts relayed in both applications, including the differing site plans, were true and correct.³ It is undisputed that White Stallion was aware of the inconsistent site plans located in the separate permit applications over a year prior to the hearing on the merits in this docket, and even prior to the direct referral of this case to SOAH.⁴ It is undisputed that the Wastewater Permit Application and the Section 404 Permit Application were filed *after* submission of the Air Permit Application to the Commission.⁵ And it is undisputed that White Stallion's representatives refused to admit that at least one of the applications needed to be amended.⁶ In fact, as far as anyone is aware, the site plans remain different, even after being brought to the light of day during the hearing on the merits, over four months ago. The testimony reflects that White Stallion's only attempt at responding revolved around the activities of the company's "development committee" and its approval of only the Air Permit Site Plan. Surely an applicant's intent is more likely to be demonstrated by the information sworn to in an application than whether the company's "development committee" had approved one over the other.

It is not clear which plant White Stallion "intends" to build because the outstanding two differing site plans cannot both be accurate. White Stallion's refusal to state on the record that it will amend its Section 404 Permit Application or Wastewater Permit Application leaves open the possibility that it intends to maximize mitigation of forested wetlands as represented in its subsequently filed Section 404 Permit Application and later amend, revise or alter its Air Permit Application. The Application, and the notice, public comment and hearing on that Application, should be about the plant that Applicant <u>actually intends to build</u>. Because the Applicant

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³ WSEC Ex. 102; EDF Ex. 121, p. 9 (Bates Label EDF 019876)

⁴ EDF Exs. 124-126.

⁵ EDF Exs. 121 and 122.

⁶ TR. I at pp. 78, 83-85

submitted site plans under sworn certification that differ from the site plan submitted as part of this Application, the Application should be either denied outright or remanded until such time as the site plan discrepancy is resolved. Alternatively, any permit issued in this Application should include a permit condition that requires new notice and an opportunity for a contested case proceeding in the event the Applicant seeks to amend or alter its air permit.

Summarily, the ALJs should have determined that the differing site plans created sufficient uncertainty as to the accuracy and completeness of White Stallion's Application, and therefore should have required White Stallion to amend one of the site plans prior to moving forward on the Air Permit Application. A permit application cannot be approved if it is deficient or incomplete,⁷ and it ultimately requires either denial of the Application or remand to finally resolve the inconsistencies before moving forward. Therefore, FOF Nos. 17 and 20, and Conclusion of Law ("COL") 5 are in error.

III. OZONE MODELING

The ALJs' finding that an applicant does not have to comply with Appendix W, through their reading of *Blue Skies Alliance*, and their assertion that EDF did not demonstrate that the Commission's procedures are the product of a plainly erroneous or inconsistent interpretation of the federal standards are in error. The applicable statutes and regulations mandate that Appendix W be utilized regardless of whether the applicant attempts to only utilize TCEQ's guidance on the issue. Moreover, *Blue Skies Alliance* is distinguishable from this case, and the evidence demonstrates that EDF did, in fact, demonstrate that the Commission's interpretation of the federal standards that provide the basis for the Commission's procedures is erroneous and inconsistent.

⁷ Tex. Health & Safety Code § 382.0518; 30 TAC § 116.111(a); 30 TAC § 116.114(a).

TCEQ rules require that an applicant's estimate of ambient ozone concentrations "shall be based on the modeling procedures specified in the EPA Guideline on Air Quality Models" (also known as "Appendix W"). 8 Specifically, 30 TAC §116.160 (d) states:

> (d) All estimates of ambient concentrations required under this subsection shall be based on the applicable air quality models and modeling procedures specified in the EPA Guideline on Air Quality Models, as amended, or models and modeling procedures currently approved by the EPA for use in the state program, and other specific provisions made in the prevention of significant deterioration state implementation plan. If the air quality impact model approved by the EPA or specified in the guideline is inappropriate, the model may be modified or another model substituted on a case-by-case basis, or a generic basis for the state program, where appropriate. Such a change shall be subject to notice and opportunity for public hearing and written approval of the administrator of the EPA. (emphasis added)⁹

Through the use of the word "shall," TCEQ's rules elevate the air quality models and modeling procedures outlined in Appendix W from recommendations to requirements. This is recognized by TCEO's air dispersion modeler and testifying expert Matthew Kovar who testified as follows:

> O (BY MR. WEBER): ... TCEQ's own rules require that you utilize the modeling guidelines provided by EPA through Appendix W. Correct?

A (BY MR. KOVAR): Correct.

Q: That's the word "shall" in the rule. Right?

A: Yes. 10

To the extent the Commission agrees with the ALJs and finds that Blue Skies Alliance is applicable to this matter (which EDF contends is not), the decision in that case also supports this proposition: "In making a PSD showing, an applicant must use the air quality modeling

 ^{8 30} TAC §116.160(d); TR. V at pp. 1147-1148.
 9 30 TAC §116.160(d).
 10 TR. V at p. 1159.

procedures specified in the EPA Guideline on Air Quality Models, unless another modeling procedure has been approved by the EPA."¹¹

Section 6.2.1 (entitled "Models for Ozone") of Appendix W requires applicants to consult with EPA Region 6 on a case-by-case basis to determine the most suitable model for analyzing ozone impacts from "individual sources." It states:

c. Estimating the Impact of Individual Sources. Choice of methods used to assess the impact of an individual source depends on the nature of the source and its emissions. Thus, model users should consult with the Regional Office to determine the most suitable approach on a case-by-case basis (subsection 3.2.2).¹³

Under this provision, determining the appropriate method for modeling ozone impacts is done on a case-by-case basis because the ability to assess ozone impacts "depends on the nature of the source and its emissions." Because TCEQ's rules state that the Applicant's estimates of ambient ozone concentrations "shall be based on the applicable air quality models and modeling procedures specified in" Appendix W, the Applicant was required by TCEQ's own rules to consult with EPA Region 6 to determine the most suitable modeling approach for analyzing ozone impacts caused by the proposed source. If Ignoring Appendix W is not permitted. The record shows that EPA attempted to initiate consultation with the Applicant on at least two occasions, the Applicant did not accept the invitation. Based on this fact, it must be held that the Applicant did not satisfy the requirements related to ozone modeling, and the Application should therefore be denied or, in the alternative, at least remanded for further proceedings.

¹¹ Blue Skies Alliance, 283 S.W.3d at 530.

¹² EDF Ex. 136.

¹³ *Id.*

¹⁴ Id

¹⁵ 30 TAC §116.160(d).

¹⁶ EDF Ex. 8; EDF Ex. 133.

Despite the Applicant's failure to consult with EPA, the ALJs assert that *Blue Skies Alliance* supports the proposition that "compliance with Appendix W is not the only option," and that effectively the *Blue Skies Alliance* decision precludes the involvement of EPA in the process. Additionally, without citation to the Texas SIP, the ALJs assert that TCEQ's Air Quality Modeling Guidelines have been accepted by EPA as part of the Texas SIP. There is no evidence in the record to support these assertions and the ALJs' reliance on *Blue Skies Alliance* is misplaced. *Blue Skies Alliance* focused specifically on the question of whether the TCEQ could determine that *de minimus* ozone impact findings could be held to have no impact on a non-attainment area. Put simply, *Blue Skies Alliance* does not address the issues argued by EDF at all.

It is also clear that TCEQ's procedures are, in fact, based upon a plainly erroneous or inconsistent interpretation of federal standards, as the ED, by permitting applicants to utilize its "Draft Ozone Procedures," which purport to incorporate "historical analyses" performed using EKMA¹⁹, relies on an outdated and "not very refined" method.²⁰ By relying on "historical analyses" performed using EKMA of unknown date or scope, the ED firmly demonstrates that its interpretation of federal standards is plainly erroneous. Section 116.160(d) is clear in that the modeling procedures utilized must be approved by EPA, even if those modeling procedures are within the confines of the TCEQ's Air Quality Modeling Guidelines. There is no evidence that EKMA has ever been accepted by EPA as a modeling tool for individual sources such as the present Application, and any reference to the tool was removed from Appendix W in 2005. Therefore, TCEQ's Air Quality Modeling Guidelines, which purport to rely on EKMA, do not

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¹⁷ PFD at 16.

¹⁸ 283 S.W.3d 525 (Tex.App. – Amarillo 2009)

¹⁹ ED Ex. 19, p. 6.

²⁰ PFD at 17.

satisfy the applicable regulation. Consequently, FOF No. 110, which states that WSEC relied on EKMA as part of its Application, supports a finding that Applicant has not met the guidelines for performing the necessary ozone modeling, and therefore its Application must be denied or remanded for further modeling with an EPA approved method.²¹

EDF agrees with the ALJs in their finding that Applicant incorrectly relied on data from Aransas Pass that was specified not to be utilized for regulatory purposes. The understood purpose of the hearing in this process is to determine whether the Applicant has met the regulatory requirements for obtaining a regulatory permit, among other things. It should go without saying that relying upon data that has been intentionally designated as not to be used in this context should not be allowed. EDF also fully supports FOF No. 115, and COL No. 15, which state that the Applicant did not establish its compliance with the TCEQ's Draft Ozone Procedures because it relied on this precluded data, and consequently failed to meet its burden of proof. However, Applicant's reliance on unapproved data should be met with a recommendation of denial of the permit, or at the very least remand for further proceedings on the matter.

Ultimately, the proper result for an Applicant's failure to meet its burden of proof is to deny the permit. The ALJs seem to suggest that this can be rectified by the Applicant by simply submitting additional evidence, but this later-submitted evidence and proposed methods are entitled to be questioned and the proffering witnesses cross-examined, thereby requiring remand should the Commission decide against denial.

Finally, the ALJs rely on FOF No. 110 to support COL No. 45's findings that 30 TAC § 116.111(a)(2)(I) has been satisfied. However, the evidence demonstrates that the standard was not met. At hearing, the Applicant offered Mr. Joe Kupper as its sole witness on ozone impacts.

It should be noted here, and as described in more detail below, that FOF No. 110 is incorrect on its face because the Applicant did not rely on EKMA, since it is clear that Mr. Kupper did not even know what EKMA was during his deposition. The evidence demonstrates that the Applicant performed only a ratio test.

The entire ozone analysis performed by Mr. Kupper (and, therefore, by the Applicant) was to follow TCEQ's so-called Draft Ozone Procedures.²² As discussed above and detailed in EDF's *Closing Brief*, the Draft Ozone Procedures rely on the outdated, EPA-rejected and legally irrelevant EKMA as the technical basis for determining whether emissions from a proposed source are "ozone neutral." However, both Mr. Kupper and the ED's Matthew Kovar admitted having little if any understanding of EKMA—the analysis that allegedly forms the basis of their opinions.²⁴

In his deposition, Mr. Kupper testified that he had never heard of the term "EKMA" or "Empirical Kinetic Modeling Approach" - the very analysis used in this case to determine compliance with the ozone NAAQS.²⁵ If this incredible admission were not enough, at hearing, Mr. Kupper testified that he could not tell the Judges the area over which emissions from the proposed source were supposedly "ozone neutral" and further admitted that he was not even an expert in ozone modeling. Mr. Kupper likewise testified in his deposition that he did not know

²²WSEC Ex. 103, p. 118.

²³EDF's Closing Brief, pp. 10-12.

²⁴EDF Ex. 130, p. 26, Tr. V. at pp. 1145-1147. At hearing, Mr. Kovar testified as follows:

Q (by Mr. Weber) Are you -- are you familiar with the term "EKMA"?

A I have a general understanding.

Q Tell us what "EKMA" stands for.

A Empirical Kinetics Modeling Approach.

Q Okay. And what is EKMA?

A It's a tool being used by EPA to evaluate ozone control strategies based on reducing the amount of NOX or VOC.

Q Is it your understanding that EPA uses EKMA for purposes of analyzing ozone from single sources?

A Would you repeat the question?

Q Is it your understanding that EPA utilizes EKMA for analyzing ozone impacts from single sources?

A I do not know.

Q Are you required to be familiar with TCEQ's air permitting rules?

A Ves

Q Okay. Is EKMA one of the modeling tools approved by EPA in its guideline on air quality models, if you know?

A I don't know off the top of my head.

²⁵EDF Ex. 130 (Excerpts from the Deposition of Joe Kupper, P.E.), p. 26.

whether TCEQ's so-called Draft Ozone Procedures provided any insight into regional ozone impacts.²⁶

Most strikingly, the evidence demonstrates that Mr. Kupper had no opinion whether emissions from the proposed source would cause or contribute to an ozone NAAQS violation—a demonstration required to be made in the Application. The Application lacks any analysis on ozone impacts and must be denied because Applicant failed to demonstrate that the proposed source will not cause or contribute to an ozone NAAQS violation as required under 40 CFR § 52.21(k) and TCEQ rules. Therefore, FOF Nos. 110, 112 and COL Nos. 13, 14, and 15 are in error.

IV. PM₁₀ AS A SURROGATE FOR PM_{2.5}

It is undisputed that EPA has established a NAAQS for PM_{2.5}. TCEQ has also adopted all of the NAAQS by reference and specified that they are to be enforced throughout Texas.²⁷ At the time the PM_{2.5} NAAQS was adopted in 1997, EPA issued a memorandum entitled "Interim Implementation for the New Source Review Requirements for PM_{2.5}." The 1997 memorandum stated that sources would be allowed to use PM₁₀ as a surrogate for meeting PM_{2.5} NSR requirements (the so-called "surrogacy policy") until certain technical difficulties were resolved.²⁸ The surrogacy policy was always intended to be an interim policy.

In 2008, EPA formally recognized that these technical barriers underlying adoption of the surrogacy policy "have largely been resolved." In 2010, EPA formally proposed to end the surrogacy policy entirely on the grounds that the PM_{2.5} implementation issues that led to the

²⁶EDF Ex. 130, p. 33. ²⁷ 30 TAC § 101.21.

²⁸ 73 Fed. Reg. 28321, 28324 (May 16, 2008).

²⁹ 73 Fed. Reg. 28,340.

adoption of the policy in 1997 have been largely resolved to a degree sufficient for sources and permitting authorities to conduct meaningful permit-related PM_{2.5} analyses.³⁰

The ALJs, without citation to the Texas SIP, state that "[u]nder the existing SIP, the Commission may accept an applicant's proof of compliance with PM2.5 NAAQS by demonstrating compliance with PM₁₀ NAAQS."³¹ The ALJs further stated that "[N]either EPA's contested case order in another matter nor EPA's mere proposal to end the surrogacy policy affects the legal status of the Texas SIP."32 It is not clear where in the Texas SIP the ALJs find support for their statement. However, EPA has made clear that the surrogacy policy cannot be applied in the absence of a case-specific inquiry showing that the surrogacy policy is appropriate. EPA's policy makes clear that an Applicant *must* either: (a) quantify, model and account for PM_{2.5} emissions and demonstrate they do not cause or contribute to violations of the NAAQS; or (b) address the propriety of applying the surrogacy policy to demonstrate "compliance with the PSD requirements," including showing the particular technical difficulties that preclude PM_{2.5} quantification and modeling.³³ The Applicant made neither showing. The law and EPA policy mandate that the Applicant and ED demonstrate that the use of PM₁₀ as a surrogate for PM_{2.5} is reasonable under the facts of this Application.³⁴ Therefore, FOF Nos. 100, 101, 102, 103, 317, 318, and COL No. 12 are in error.

V. DISPERSION MODELING

A. Receptor Grid

EDF's *Closing Brief* lists the many reasons why the Applicant's supplied dispersion modeling is fundamentally flawed and requires denial of the Application. The ALJs attempt to

³⁰ 75 Fed. Reg. 6827, 6834 (February 11, 2010).

³¹ PFD p. 26.

 $^{^{32}}$ Id

³³ 75 Fed. Reg. 6827, 6833 (February 11, 2010).

³⁴ See EDF Ex. 119.

sidestep this evidence by creating a new standard that chooses to ignore guidance documents (at least on certain points), despite mounds of previous cases, some of which the ALJs use to support their findings, that have relied on the use of such guidance documents. Additionally, the ALJs recognize the Applicant's failure to satisfy the standards at issue in this matter, but nevertheless determined that White Stallion satisfied its burden. This is not the proper result for such findings.

1. The ALJs Disregard the Use of Guidance Documents and Create A New Standard

The PFD makes a sharp turn as the analysis by the ALJs reaches the question of dispersion modeling. In essence, it is contended that guidance documents do not bind an Applicant, and instead a decision can be based upon "whether the applicant's modelers have used the best available professional judgment." The problems with this are numerous, not the least of which is that the entire analysis is devoid of any legal support. No cases or statutes are cited for the proposition that guidance documents can largely be ignored (or ignored in this specific instance), and nothing is cited to support the utilization of a "best available professional judgment" standard to satisfy an Applicant's burden of proof. The ALJs then go one step further and, in the context of analyzing the evidence submitted on the issue of whether emissions should be measured from the barge area (addressed further below), seem to believe that their "task is to choose among the least objectionable of the two proposals." **36**

The PFD clearly shows that the ALJs were unsatisfied with the evidence presented to them on this issue. At its very core, a finding that the evidence adduced at the hearing was unsatisfactory must result in a holding that Applicant has failed to meet its burden of proof.

³⁵ PFD at 29.

³⁶ *Id.* at 31.

2. Applicability of Dockside Guidance and EDF's Evidence

The Dockside Guidance Document³⁷ states that for some activities, such as marine loading, "sources may be located off-property and emitting directly into ambient air," and that the Dockside Guidance Document applies to those situations. Here, the Applicant did not model any sources located off-property or emissions from the barges themselves.³⁸ Instead, the modeling focused on on-property emission sources associated with the unloading of the materials from the barges. This makes the Dockside Guidance Document inapplicable, and the ALJs erred in taking it into consideration in approving Applicant's modeling.³⁹

Additionally, the ALJs limit the evidence presented by EDF and its modeler. EDF asserts that receptors during the modeling runs should be placed on the property line of the facility and within the barge area, which the Applicant decided not to do, instead choosing to erroneously follow a guidance document not intended for its use. The modeling done to support EDF's position was performed by its expert on the subject, Mr. Mike Hunt, and resulted in a demonstration of exceedances of the short-term PM₁₀ PSD increment standard and a violation of 40 CFR §52.21(k). However, the ALJs limited their focus to a single modeling year exceedence of 39.7 µg/m³, while the evidence demonstrates that the PSD increment is exceeded in each of the five modeled years at the same location.⁴⁰ It is the Applicant's burden to demonstrate that emissions from WSEC will not contravene the intent of the TCAA and mere assertions of what could be done to reduce modeled impacts is not sufficient.

³⁷ August 12, 2002, TCEQ memorandum entitled "Air Dispersion Modeling for Dockside Marine Vessels and Related Activities."

³⁸ TR. II at pp. 359-360.

³⁹ The ALJs state that "[t]he [guidance] document also contemplates that the source of emissions is considered to be part of the property but only during actual operations." PFD at 31. The Applicant did not model emissions from the barges themselves or other sources located off-property over the river. Thus this statement demonstrates the ALJs' misunderstanding of the guidance because the guidance by its own terms applies only to emissions sources located "off-property." The barges were not modeled as the sources of emissions, and all emissions sources modeled were land-based.

⁴⁰ See EDF Ex. 118.

The ALJs also err in minimizing the data presented by arguing that placing receptors on the property line results in a measure of emissions from the points of release rather than from the border of ambient air. However, the NAAQS and PSD increment standards do not kick in "at the property line plus 25 meters," as the Applicant's proposal demands and of which the ALJs approve. The NAAQS and PSD increment standards start at the property line, which is where the data was correctly modeled by EDF. This modeling demonstrated multiple exceedances of the PSD increment for 24-hour PM₁₀. Therefore, FOF Nos. 46, 50, 51, 97, 98, 99 and COL No. 47 are in error. As a result the Application must be denied or, in the alternative, remanded to resolve any outstanding issues.

B. New NAAQS

On February 9, 2010, EPA published a final rule containing a new NAAQS for NO₂ based on a 1-hour averaging time.⁴³ The new 1-hour NAAQS for NO₂ became effective on April 12, 2010. Similarly on June 22, 2010, EPA published a final rule containing a new NAAQS for SO₂ based on a 1-hour averaging time.⁴⁴ The new 1-hour NAAQS for SO₂ becomes effective on August 23, 2010. Under 40 CFR § 52.21(k) proposed sources must demonstrate that their allowable emissions will not cause or contribute to a violation of "any national ambient air quality standard in any air quality control region." (emphasis added).⁴⁵ The owner or operator of any major stationary source obtaining a final PSD permit on or after the effective date of the new NAAQS are required, as a perquisite for the PSD permit, to demonstrate that the emissions increases will not cause or contribute to a violation of that new NAAQS.⁴⁶ At the time a new

⁴¹ PFD at 33.

⁴²See EDF Closing Brief, pp. 18-19 (citing numerous Appendix W as incorporated in TCEQ rules at 30 TAC 116.160(d) and numerous EPA and TCEQ guidance documents).

⁴³ 75 Fed. Reg. 6474 (February 9, 2010).

⁴⁴ 75 Fed. Reg. 35520 (June 22, 2010).

⁴⁵ Incorporated by TCEQ at 30 TAC 116.160(c)(2).

⁴⁶ See 75 Fed. Reg. 35520, 35578 (June 22, 2010).

NAAQS is promulgated, EPA interprets the federal Clean Air Act ("FCAA") and EPA regulations to require implementation of the new standard in the federal PSD permitting process upon the effective date of the new standard.⁴⁷ The Applicant has not yet received a final permit and has not made the required demonstration under 52.21(k).⁴⁸ Therefore, the Application should be denied or, in the alternative, remanded to the ED until the required demonstration is made.

VI. STATE EFFECTS REVIEW

EDF supports the ALJs' findings regarding the deficiencies in the Application's State Effects Review. The ALJs are correct that the Applicant failed to prove that its Application will give "no indication" that it will harm the public's health, general welfare, and physical property as required by Section 382.0518(b)(2) of the Tex. Health & Safety Code. The evidence clearly showed that coal dust exceedances extended into and across the Colorado River and onto the opposite bank. The evidence also clearly showed that coal dust impacts exceeded both the annual and short-term ESL at multiple non-industrial receptor locations.

The ALJs are also correct in finding that "no representative of the ED testified that PM₄ was the correct measure of respirable coal dust, that a measure of respirable coal dust exists, or that a measure other than PM₁₀ is appropriate to use in evaluating coal dust as part of a health effects review." However, the ED's representative did testify that it is the ED's policy that PM₁₀ is the appropriate measure to use in evaluating coal dust as part of the state effects review, which is also consistent with past agency practice.⁴⁹ Therefore, EDF respectfully requests that the Commission revise the Order to include a FOF reflecting the same.

 ⁴⁷ *Id.* at 35580.
 48 FOF No. 80 is in error.

⁴⁹ Lee, Tr. V at pp. 1222-1223.

The Applicant's failure to provide the information relating to coal dust emissions in its Application is also in violation of the requirements of Chapter 116 of the Texas Administrative Code. Section 116.111(a)(2)(A) requires that the Application include information which demonstrates that emissions from the facility protect the public health and welfare. It is undisputed that WSEC will emit coal dust. The Application did not include information on the impacts of coal dust, among other constituents, on the public health and welfare. Therefore, the Application is deficient on its face and FOF Nos. 32, 43, 214, and COL Nos. 5, 77, and 83 are in error.

While EDF supports the ALJs' recommendation that the Application cannot be granted at this time, COL No. 83 seems inconsistent with that recommendation. Therefore, COL No. 83 should also be amended to reflect the following:

"In accordance with Tex. Health & Safety Code § 382.0518(b), the application for Air Quality Permit Nos. 86088, HAP28, PAL 26 and PSD-TX-1160 cannot be approved and Air Quality Permit Nos. 86088, HAP28, PAL26 and PSD-TX-1160 should not be issued."

VII. BACT

A. In General

The federal definition of best available control technology ("BACT") requires consideration of alternative production processes or innovative fuel combustion techniques, such as IGCC, and clean fuels in the BACT review of a preconstruction air permit application.⁵⁰ BACT is defined as an emission limitation based on:

"the maximum degree of reduction for each pollutant subject to regulation under this chapter [the Clean Air] emitted from or which results from any major emitting facility, which the permitting

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⁵⁰ 42 U.S.C. §§ 7479(3) and 7475(a)(4).

authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of <u>production</u> processes or available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel <u>combustion techniques</u> for control of each such pollutant." 42 U.S.C. § 7479(3) (emphasis added).

TCEQ's currently approved PSD SIP requires that TCEQ apply the federal definition of BACT in its BACT review of preconstruction air permit applications.⁵¹ The issuance of PSD permits and other actions by TCEQ in the administration of the PSD program must conform to the requirements of the Act, applicable EPA regulations, and the SIP.⁵² This includes consideration of alternative production processes or innovative fuel combustion techniques, such as IGCC, and clean fuels in the BACT analysis. The 1990 Amendments to the Clean Air Act revised the federal BACT definition to "specify that 'clean fuels' should be considered in a BACT analysis."⁵³

It is undisputed that the ED's BACT review did not include a review of alternative production processes or innovative fuel combustion techniques, such as IGCC, or clean fuels. The ED's BACT review focused only on circulating fluidized bed ("CFB") boilers. The ED simply assumed that inclusion of IGCC or clean fuels was not required under a BACT review because it would constitute redefinition of the Applicant's proposed facility. The ED's assumption is contrary to the plain language of the federal definition of BACT, as incorporated into the Texas SIP. The ALJs' PFD and proposed order read out of the definition of BACT the requirement to consider alternative production processes or innovative fuel combustion

⁵¹ 74 Fed. Reg. 48467 (September 23, 2009). TCEQ has also recently amended its rules to re-incorporate the federal BACT definition.

⁵² 57 Fed. Reg. 28093, 28095 (June 24, 1992).

⁵³ Id. at 28097 ("EPA has interpreted the new statutory language regarding clean fuels as merely codifying present practice under the Act.... Accordingly, EPA believes that no regulatory revisions are necessary in order to implement these statutory changes. In addition, in its letter of April 17, 1992, the TACB [TCEQ] has committed to interpreting the revised language in section 169(3) [7479(3)] in a manner consistent with EPA's interpretation.").

techniques, such as IGCC, and clean fuels. Therefore, the FOF Nos. 249, 269, 270, 274, 279, 304 and COL Nos. 5, 7, 48, 49, 50, 52, and 81 are in error.

B. NO_x

The evidence in the record supports lower NO_x emission limits for WSEC. According to Applicant the lower combustion temperatures inherent in a CFB generate less thermal NO_x, which ultimately results in a nominal uncontrolled NO_x value of 0.15 lb/MMBtu (exiting the CFB).⁵⁴ The Applicant then proposes to use selective non-catalytic reduction ("SNCR") to further reduce NO_x emissions. This particular control technology provides an additional 50 to 70 percent NO_x removal efficiency above the reduction realized from the lower furnace combustion temperatures inherent in a CFB.⁵⁵ Based on these numbers, provided by the Applicant, NO_x limits should be in the range of 0.045 – 0.075 lb/MMBtu. Yet, the NO_x limits proposed for WSEC are in the range of 0.10 lb/MMBtu (hourly) and 0.070 lb/MMBtu (30-day average), which equate to removal efficiencies of just 33.33% and 53.33%, respectively. The Commission should revise the NO_x BACT limits in the Order to reflect the NO_x removal efficiencies that Applicant admits are achievable with SNCR. In the alternative the Commission should remand the Application to the ED to determine the appropriate NO_x BACT limits.

The Commission should also remand the Application to address the applicability of selective catalytic reduction ("SCR") technology to a CFB. It is undisputed that at least one catalyst vendor will provide a guarantee for a SCR on a CFB in either the tail-end or high-dust location. ⁵⁶ Additionally, Bill Powers, P.E., testified that catalyst vendors are guaranteeing SCRs

⁵⁴ WSEC Ex. 500 at 11.

⁵⁵ WSEC Ex. 500 at 12.

⁵⁶ Sierra Club Ex. 320 ("will provide a guarantee on a tail-end SCR for a 300 MW CFB... will provide a guarantee on an SCR located downstream of the cyclones – a high dust location.").

on CFBs,⁵⁷ which is entirely consistent with Dr. Ron Sahu's testimony regarding SCR catalyst vendors and CFBs. These guarantees are new technical developments under RG-383, and therefore, SCR should have been considered under the Tier I BACT analysis. The Applicant's and ED's failure to perform a Tier I BACT analysis with consideration to both SCR configurations renders the BACT review incomplete and deficient.⁵⁸ Therefore, FOF Nos. 263, 264, 265, 266, 288, 289, 296, 299, and COL Nos. 7, 50, 53, and 81 are in error. Additionally, COL No. 53 arbitrarily restricts the scope of a Tier I BACT analysis to include only those new technical developments occurring since the most recent permitting decisions. There is no justification for limiting the ED's BACT review.⁵⁹ This COL should be removed from any order entered by the Commission.

C. SO₂

The federal definition of BACT, as incorporated into the Texas SIP, requires consideration of 'clean fuels' in a BACT review of a preconstruction air permit application. TCEQ's BACT guidance document, RG-383, provides that use of low sulfur fuels is an emission reduction option in a BACT analysis. 60 Other CFBs using lower sulfur fuels have lower permitted SO₂ limits than those proposed for WSEC. As previously explained, the Applicant and ED failed to consider 'clean fuels', such as lower sulfur fuel, in their BACT analysis. BACT requires consideration of lower sulfur fuels. There is no evidence that consideration of lower

⁵⁷ Sierra Club Ex. 200 at pp. 12-13; TR. III at p. 559.

⁵⁸ The ED's expert witness, responsible for the BACT review of the Application, testified that he did not analyze the use of tail-end SCR during his BACT review.

For example under COL No. 53, a technology that was uneconomic but technically feasible during the last permitting decision may not be considered a new technical development in a future permitting decision if the technology becomes economic.

⁶⁰ ED Ex. 3, pp. 6-7 ("Any of the following individual options, or any combination of them, may be proposed for BACT: pollution prevention (process controls/changes, source reduction).... The following are specific examples of pollution prevention that applicants have proposed:use of low sulfur fuels.").

sulfur fuels would make the proposed WSEC uneconomic.⁶¹ The Applicant's higher SO₂ emission limits result from its choice of inlet sulfur contents, which Applicant admits are conservative and provide a margin of compliance.⁶² The Applicant's artificially high inlet sulfur contents coupled with the longer 30-day and annual averaging periods for its SO₂ emission limits, and its failure to consider lower sulfur fuels, results in improper BACT limits. Therefore FOF No. 301 and COL Nos. 5, 7, 45, 49, 50, 77, and 81 are in error.

D. PM

EDF supports the ALJs' findings that the limits proposed by the Applicant and ED are not BACT for filterable PM or total PM. The evidence in the record overwhelming establishes that BACT for filterable PM is at least 0.010 lb/MMBtu on a 3-hour basis. The evidence in the record also establishes that BACT for total PM is at least 0.016 lb/MMBtu on a 3-hour basis. This limit is consistent with Applicant's vendor guarantees, testimony that lower total PM levels are expected, and emission reduction performance levels accepted as BACT in other permits. However, if the Commission disagrees that these lower limits represent BACT then the Application should be denied or remanded to the ED to determine the appropriate BACT limits.

EDF also supports the ALJs' findings that the limits proposed by the Applicant and ED are not BACT for PM_{2.5} and that BACT is at least 0.016 lb/MMBtu. However, the limits proposed by Applicant and ED are also not BACT because they are based on AP-42 fractions, which do not necessarily reflect BACT. As explained in *Trimble*, a simple ratio of AP-42 emissions factors would not appear sufficient in developing the correlations to demonstrate that

⁶¹ FOF No. 304, states that changing the fuel source "would likely throw other design considerations into question, including the economics of the project." The only 'evidence' to support this alleged FOF is pure speculation. Clearly other CFB projects are able to burn lower sulfur fuel economically. *See* PFD p. 62, Table. The ED did not make any independent analysis to determine whether use of lower sulfur fuel would make WSEC uneconomic. WSEC is not a mine-mouth plant and is not exactly next-door to the Illinois Basin. EDF requests that FOF No. 304 be removed from any order entered by the Commission.

⁶² See EDF Ex. 1, pp. 18-20; PFD p. 61 ("According to WSEC, the sulfur content assumptions it made were conservative and provided a margin of compliance.").

the use of PM₁₀ as a surrogate for PM_{2.5} is reasonable.⁶³ Additionally, there is no technical reason why a PM_{2.5}-specific BACT analysis could not have been conducted. PM_{2.5} is a regulated pollutant under the Clean Air Act and an air contaminant under the Texas Clean Air Act. The failure of the Applicant and ED to conduct a BACT analysis for PM_{2.5} renders the Application deficient. Therefore, FOF Nos. 317 and 318 are in error.

E. Mercury

EDF incorporates herein Protestants' exceptions regarding BACT for mercury, if any.

F. Carbon Monoxide

EDF supports the ALJs' findings that the limit proposed by the Applicant and ED is not BACT for carbon monoxide ("CO") and that 0.10 lb/MMBtu is at least BACT for CO.

G. VOCs

The ALJs' proposed limit for VOCs does not represent BACT. It is undisputed that there are at least three other facilities with lower VOC limits (0.0047 lb/MMBtu). The relatively small difference between BACT for WSEC and the other facilities should not justify using the higher BACT limit. Therefore, FOF No. 330 is in error.

$H. H_2SO_4$

EDF supports the AJLs' findings that the limits proposed by the Applicant and ED are not BACT for H₂SO₄. The evidence in the record, including vendor guarantees and lower permitted limits, establishes that BACT is at least 0.0045 lb/MMBtu for both fuels. Any uncertainty surrounding compliance testing for H₂SO₄ did not deter other permitting authorities from determining that BACT for H₂SO₄ is much lower than proposed by the Applicant and ED. However, if the Commission disagrees that this lower limit represents BACT then the

⁶³ EDF Ex. 119, p. 45.

Application should be denied or, in the alternative, remanded to the ED to determine the appropriate BACT limits because the Applicant has not met its burden.

VIII. MACT

Like BACT, MACT is designed to be technology-forcing to ensure that new technologies are used to obtain the lowest achievable emissions of pollutants in newly issued permits. A MACT emission limitation for a new source means:

the emission limitation which is not less stringent than the emission limitation achieved in practice by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed major source. ⁶⁴

A proper MACT analysis begins with the permitting authority determining the emission limitation which is not less stringent than the emission limitation achieved in practice by the best controlled similar source (referred to as the "MACT floor" by Applicant). Then the permitting authority determines whether that emission limitation reflects the maximum degree of reduction in emissions that is achievable, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements (referred to as the "beyond-the-floor analysis" by the Applicant).

Based on the plain language of the rule, a MACT analysis must result in the most stringent emission limitation achieved in practice by the best controlled similar source. Nowhere in the rule does it provide that the most stringent emission limitation must also be a previously permitted emission limitation. However, that is exactly how the Applicant and ED have interpreted MACT. By disregarding stack test data and failing to consider the most stringent

⁶⁴ 40 C.F.R. § 63.41. The TCEQ definition of MACT found in 30 TAC 116.15 is similar.

emission limitations that similar sources are actually achieving, the MACT analysis for WSEC is legally deficient. Therefore, FOF Nos. 362, 364, 365, 374, 375, 376, 377, 378, 379, and COL Nos. 5, 54, 55, 67, 68, 69, 70, 71, and 80 are in error. As a result the Application is deficient and should be denied or, in the alternative, remanded to the ED for a proper case-by-case MACT review.

IX. PERMIT CONDITIONS

A. Special Condition 45

As explained in EDF's closing briefs, the ED relied upon Special Condition 45 ("SC 45") to justify higher BACT limits, which is inconsistent with a preconstruction determination of BACT mandated by the FCAA and TCAA. Additionally, SC 45 only applies to results after the first annual compliance sampling, not to subsequent years, and only lowers applicable emissions limits if the sampling results are less than an arbitrarily-selected threshold of the permitted limits (in this case 50 percent). Therefore, FOF No. 394 is in error. If the Commission is inclined to include SC 45 in White Stallion's permit then EDF respectfully requests that the Commission amend SC 45 (and FOF No. 393) to make it applicable to all compliance sampling/monitoring regardless of year and raise the triggering threshold (i.e. if the sampling results are less than 75 percent of the permitted limits).

B. PM CEMS

The ALJs have declined to recommend that the Applicant install PM CEMS. However, the evidence in the record overwhelming proves that PM CEMS are adequately demonstrated and technically feasible. The only party to dispute the ED's expert and Protestants' experts was the Applicant. PM CEMS measure the pollutant of interest, filterable PM, and provide a greater

⁶⁵ Tr. V pp. 1051-1052 (Q: And the origin of the 50 percent threshold in your Special Condition 45 is not based on any specific analysis, is it? A: No.)

degree of confidence that the PM control device is operating as intended.⁶⁶ EDF respectfully requests that the Commission as a matter of policy require the installation of PM CEMS at WSEC.

X. PAL PERMIT

It is undisputed that WSEC is a new major source of air pollutants under the FCAA, which triggers federal New Source Review ("NSR"). Under the Texas SIP, the Commission has the authority to implement the federal NSR programs, specifically PSD. However, the issuance of PSD permits and other actions by the Commission in the administration of the PSD program must conform to the requirements of the FCAA, applicable EPA regulations, and the SIP.⁶⁷ EPA's PAL regulations under Sections 51.165 (Permit Requirements) and 51.166 (Prevention of Significant Deterioration of Air Quality) limit the applicability of PAL permitting to existing major stationary sources. The Commission's PAL rules, which were submitted to EPA as revisions to its SIP, apply to both existing and new sources. EPA currently proposes disapproval of the proposed SIP amendment because the absence of the applicability limitation creates a provision less stringent than the FCAA and the federal NSR SIP PAL requirements. 68 Therefore. EDF submits it is inappropriate for the Commission to issue a PAL as requested by the Applicant unless and until the EPA approves the Commission's PAL rules.

XI. TRANSCRIPT COSTS

The ALJs' PFD recommends that the three nonstatutory parties share the transcript costs equally. EDF respectfully requests that the Commission amend FOF No. 397 and COL No. 84 to allocate all of the transcript costs to the Applicant, as was done in the final order for IPA Coleto Creek. The Applicant presented the most witnesses and the only rebuttal witnesses. It is

⁶⁶ EDF Ex. 8 p. 3.

⁶⁷ See 57 Fed. Reg. 28093, 28095 (June 24, 1992). ⁶⁸ 74 Fed. Reg. 48467, 48474 (September 23, 2009).

also a matter of public knowledge that the Applicant has greater financial ability to pay than the non-profit Protestants. Finally, the Applicant requested direct referral of its Application making all air permitting issues relevant and therefore benefits the most from a hearing transcript.

XII. CONCLUSION

As confirmed by the PFD, White Stallion's Application cannot be granted at this time. In accordance with the PFD, and for each of the additional reasons described above and in EDF's Closing Brief and Reply Brief previously filed in this matter, EDF respectfully requests that the Application be denied. In the alternative, if the Commission determines remand is appropriate for any reason, then EDF requests that, pursuant to the Texas Health & Safety Code, the Applicant should be required to re-file and re-notice its Application. In addition, EDF respectfully requests that the Commission grant such other and further relief for which EDF and the other Protestants show themselves justly entitled.

Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that on this the 26^{th} day of July, 2010, the foregoing document has been served by hand-delivery, email, facsimile or U.S. Mail to the addressees listed below:

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